# COMMONWEALTH OF VIRGINIA Department of Environmental Quality Piedmont Regional Office

#### STATEMENT OF LEGAL AND FACTUAL BASIS

Philip Morris 3601 Commerce Road, Richmond City, Virginia Permit No. PRO50076

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Philip Morris has applied for a Title V Operating Permit for its Richmond Manufacturing Center facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:	Date:
Air Permit Manager:	Date:
Regional Deputy Director:	Date:

#### **FACILITY INFORMATION**

Permittee
Philip Morris USA, Inc.
PO Box 26603
Richmond, VA 23261

Facility
Philip Morris USA, Inc. - Manufacturing Center 3601 Commerce Road
Richmond Virginia

County-Plant ID: 760-0308

#### **SOURCE DESCRIPTION**

SIC Code: major group 21 - Tobacco Products

Tobacco is processed and flavored and cigarettes are manufactured at the Philip Morris USA Incorporated (PMUSA Inc.) Manufacturing Center in Richmond, Virginia under SIC Code 2111. At the Manufacturing Center facility, the Bright, Burley, Oriental and Sheet tobacco is unpacked from containers and conditioned to obtain optimum moisture levels and separate clumps. A portion of the tobacco is diverted and undergoes an expansion treatment. Flavoring is added and the tobacco is cut into strips and dried. The Expanded tobacco and Scrap tobacco is added, flavoring is applied to the final tobacco blend and it is sent to storage. Cigarette filters are made and are sent to the cigarette-making machines. The blended tobacco is sent from storage to the machines. The cigarettes are then made and packaged. At the Flavor Center facility, liquid flavors are mixed in vessels and dry flavors are blended. The completed flavor materials are packed out for use at PMUSA Inc. facilities.

The facility is a Title V major source of Volatile Organic Compounds (VOC). This source is located in a non-attainment area for ozone and attainment area for all other pollutants. The facility was previously permitted under five Minor NSR Permits issued on September 15, 2004; August 17, 2004; August 9, 2004 (as amended October 12, 2004); September 22, 1977; and November 25, 1974.

#### **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations,

the facility has not been found to be in violation of any state or federal applicable requirements at this time.

#### **EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility consist of the following:

Emission	Stack ID	Emission Unit Description -	Size / Rated	Pollution Control Device	PCD ID	Pollutant	Applicable	
Unit ID	Stack ID	Manufacturer - Date of Construction	Capacity*	Description (PCD)*	I CD ID	Controlled	Permit Date	
Fuel Burning	Equipment							
BO0101	AE-01B	Central Plant Package Boiler No. 1 (natural gas and #2 fuel oil) - Combustion Engineering - Pre 1974	143.5 mmBTU/hr (maximum continuous rate (MCR))	Joy Multicyclone (80% efficient)	SD0101	Particulate	None	
BO0201	AE-02B	Central Plant Package Boiler No. 2 (natural gas and #2 fuel oil) - Combustion Engineering - Pre 1974	143.5 mmBTU/hr (MCR)	Joy Multicyclone (80% efficient)	SD0201	Particulate	None	
BO0301	AE-06B	VU-40 PC Boiler (pulverized coal and #2 oil)-Combustion Engineering - 1974	172.5 mmBTU/hr (MCR)	Universal Oil Products, Co. (UOP) Model #20(6996)24-1-4 Electrostatic Precipitator (hot side, high voltage, four field) 98% efficient	PE0101	Particulate	11/25/74 permit; 9/24/1974 application	
HX0301	Fugitive	12 Coal Car thawing (#2 oil) burners Series 6856 North American Mfg Co1977	5.1 mmBTU/hr total	None			9/22/1977	
FU0301 FU0401	AE-41 AE-32	Furnaces (natural gas and #2 oil) - 1999	6.77 mmBTU/hr each	None			None	
<b>Emergency G</b>	Senerators							
EG0101C		Diesel Emergency Generator	675 kW	None				
PU0101C		Diesel Emergency Fire Pump	255 hp	None				
PU0102C		Diesel Emergency Fire Pump	255 hp	None				
<b>Ash Handling</b>	<u> </u>							
AH0101	AE-05 AE-07	Ash Handling System (including ash transport system and storage silo) - 1974	1,800 lb/hr ash	Filter bags and baghouse filter (99.0% efficient)	SF0101 BH0101	Particulate	None	

Emission	Stack ID	Emission Unit Description -	Size / Rated	Pollution Control Device	PCD ID	Pollutant	Applicable
Unit ID	Stack ID	Manufacturer - Date of Construction	Capacity*	Description (PCD)*	FCDID	Controlled	Permit Date

TP1401 TP0801 TP1501	AE-91 AE-92 AE-J1	Pneumatic Transport System - 1996	4,160 lb/hr	One four-segment baghouse filter (99.0% efficient) and two baghouse filters (99.0%	BH3401 BH3402 BH3403 BH3404	Particulate	8/9/2004 as amended 10/12/2004
11 1001	7.2 01			efficient)	BH3501 BH6001		10/12/2001
<b>Dust Collecti</b>	on/Housekeep	ing Vacuum					
CN0601 CN0602 CN0603	AE-E3 AE-H7	Housekeeping Vacuum System 1996	720 lbs/hr	Three baghouse filters (99.0% efficient)	BH3801 BH3802 BH5901	Particulate	8/9/2004 as amended 10/12/2004
MAHVSU	AE-P1 AE-P2 AE-P3 AE-P4 AE-P5 AE-P8\ AE-P9	Housekeeping vacuum system – 1997, 2003	32,000	Seven baghouse filters (99.0% efficient)	BH1001 BH1101 BH1401 BH7101 BH7201 BH6501 BH6601	Particulate	8/9/2004 as amended 10/12/2004
CN 0701	AE-F4	Housekeeping Vacuum System - 1999	200 lbs/hr	Baghouse filter (99.0% efficient)	BH4201	Particulate	8/9/2004 as amended 10/12/2004
CN0901	AE-G5	Housekeeping Vacuum System - 2001	200 lbs/hr	Baghouse filter (99.0% efficient)	BH5301	Particulate	8/9/2004 as amended 10/12/2004
CN1001	AE-J8	Housekeeping Vacuum System - 2003	100 lbs/hr	Baghouse filter (99.0% efficient)	BH7301	Particulate	8/9/2004 as amended 10/12/2004

Emission Unit ID	Stack ID	Emission Unit Description - Manufacturer - Date of Construction	Size / Rated Capacity*	Pollution Control Device Description (PCD)*	PCD ID	Pollutant Controlled	Applicable Permit Date
TP3001	AE-P6	Pneumatic Transport System - to be built	31.4 TPA units/hr	Baghouse filter (99.5% efficient)	BH6901	Particulate	8/9/2004 as amended 10/12/2004
DC1001	AE-P7	Mechanical Transport System - to be built	188.4 TPA units/hr	Baghouse filter (99.5% efficient)	BH8001	Particulate	8/9/2004 as amended 10/12/2004
TP1101	AE-57 AE-59 AE-63 AE-J3 AE-J4 AE-J5	Pneumatic Transport System 1974, 1997	2,160 lb/hr	Twelve baghouse filters (99.5% efficient)	BH0801 BH0802 BH0803 BH0901 BH7001 BH3201 BH3202 BH3203 BH6201 BH6301 BH6401	Particulate	8/9/2004 as amended 10/12/2004
PC0101 PC0201	AE-24	Conditioning Chambers -1974	36,000 lbs/hr	None			8/9/2004 as amended 10/12/2004
CS0101 CS0201 CS0301	AE-45 AE-46 AE-47	Conditioning Cylinders -1995	75,000 lbs/hr total	Three rotoclone scrubbers (90.0% efficient)	SR0101 SR0201 SR0301	Particulate	8/9/2004 as amended 10/12/2004
CS0401 CS0501	AE-43 AE-40	Conditioning Cylinders – 1974	49,000 lbs/hr total	Two rotoclone scrubbers (90.0% efficient)	SR0401 SR0501	Particulate	8/9/2004 as amended 10/12/2004
SP0101	AE-14	Pneumatic separators – 1974	25,000 lbs/hr	Two baghouse filters (99.5% efficient)	BH0101 BH0102	Particulate	8/9/2004 as amended 10/12/2004
SP0901 SP1001 SP1102	AE-E7 AE-E8 AE-E9	Pneumatic separators - 1997	81,000 lbs/hr	Three Baghouse filters (99.5% efficient)	BH4101 BH4102 BH4103	Particulate Particulate Particulate	8/9/2004 as amended 10/12/2004

Emission Unit ID	Stack ID	Emission Unit Description - Manufacturer - Date of Construction	Size / Rated Capacity*	Pollution Control Device Description (PCD)*	PCD ID	Pollutant Controlled	Applicable Permit Date
CS0901	AE-H8	Liquid application and conditioning cylinder – 1996	20,000 lbs/hr	Rotoclone scrubber (90.0% efficient)	SR2601	Particulate	8/9/2004 as amended 10/12/2004
OC0301 OC0401 CO0301 CO0401	AE-E4	Conditioning chamber and conveyor – 1996	14,000 lbs/hr	Wet scrubber (90.0% efficient for particulate; 40.0% efficient for VOC)	SC0301	Particulate VOC	8/9/2004 as amended 10/12/2004
CO0101 CO0201	AE-34 AE-35	Conveyors - 1983	14,000 lbs/hr	Two wet scrubbers (90.0% efficient for particulate; 40.0% efficient for VOC)	SC0101 SC0201	Particulate VOC	8/9/2004 as amended 10/12/2004
SM0402	AE-H5	Mechanical separator - 1996	7000 lbs/hr	Baghouse filter (99.5% efficient)	BH5701	Particulate	8/9/2004 as amended 10/12/2004
SM0502	AE-H6	Mechanical separator - 1996	7000 lbs/hr	Baghouse filter (99.5% efficient)	BH5801	Particulate	8/9/2004 as amended 10/12/2004
PP0101 CO0301 CO0401	AE-G8	Mechanical Transport system – 1997	14,000 lbs/hr	Baghouse filter (99.5% efficient)	BH5601	Particulate	8/9/2004 as amended 10/12/2004
FC0101 FC0201 FC0301 FC0401	AE-16 AE-17 AE-26 AE-18	Liquid application cylinders - 1992	60,000 lbs/hr	Four rotoclone scrubbers (90.0% efficient)	SR0901 SR0801 SR0701 SR0601	Particulate	8/9/2004 as amended 10/12/2004
DA0101 DA0201 DA0301 DA0401	AE-25 AE-22 AE-19 AE-15	Steam dryers - 1992	60,000 lbs/hr	None			8/9/2004 as amended 10/12/2004
CC0101 CC0301	AE-42	Liquid application cylinders - 1974	30,000 lbs/hr	Two rotoclone scrubbers (90.0% efficient)	SR1001 SR1201	Particulate	8/9/2004 as amended 10/12/2004
CC0201 CC0401	AE-42	Liquid application cylinders – 1974	30,800 lbs/hr	Two rotoclone scrubbers (90.0% efficient)	SR1101 SR1301	Particulate	8/9/2004 as amended 10/12/2004

Emission Unit ID	Stack ID	Emission Unit Description - Manufacturer - Date of Construction	Size / Rated Capacity*	Pollution Control Device Description (PCD)*	PCD ID	Pollutant Controlled	Applicable Permit Date
CS0601 CS0701	AE-70	Conditioning cylinders - 1974	68,000 lbs/hr	Two rotoclone scrubbers (90.0% efficient)	SR2701 SR1401	Particulate	8/9/2004 as amended 10/12/2004
DR0101 DR0201 DR0301 DR0401	AE-48 AE-49	Steam dryers - 1982, 1984, 1985	100,000 lbs/hr	Four rotoclone scrubbers (90% efficient for particulate) followed by two incinerators (90.0% efficient for particulate, 95% efficient for VOC)	SR1801 SR1701 SR1601 SR1501 IN0101 IN0201	Particulate  Particulate/ VOC	10/14/97 RACT & 8/9/2004 as amended 10/12/2004
TP0201	AE-L1 AE-L2 AE-L3 AE-L4 AE-L5 AE-L6 AE-L7 AE-L8 AE-L9 AE-M1 AE-M2 AE-M3 AE-M4 AE-J2 AE-J6 AE-J7	Pneumatic transport system – 1974, 1997	72,000 lbs/hr	Sixteen baghouse filters (99.5% efficient)	BH2001 BH2002 BH2003 BH2101 BH2102 BH2103 BH2201 BH2202 BH2301 BH2302 BH2602 BH2603 BH2604 BH6101 BH6701 BH6801	Particulate	8/9/2004 as amended 10/12/2004
SM0901	AE-58	Mechanical separating system - 1990	10,000 lb/hr	Two baghouse filters (99.5% efficient)	BH1501 BH1601	Particulate	8/9/2004 as amended 10/12/2004
SP0201 SP0301 SP0401	AE-E2	Pneumatic separators - 1996	19,000 lbs/hr	Baghouse filter (99.0% efficient)	BH3701	Particulate	8/9/2004 as amended 10/12/2004
SP0801	AE-F5	Pneumatic separator - 1999	20,000 lbs/hr	Baghouse filter (99.0% efficient)	BH3901	Particulate	8/9/2004 as amended 10/12/2004

Emission Unit ID	Stack ID	Emission Unit Description - Manufacturer - Date of Construction	Size / Rated Capacity*	Pollution Control Device Description (PCD)*	PCD ID	Pollutant Controlled	Applicable Permit Date
FC0501 FC0502 FC0601 FC0602 FC0701 FC0702 FC0801 FC0802	AE-48 AE-49	Liquid application cylinders - 1993, 1995	200,000 lbs/hr	Four rotoclone scrubbers (90% efficient for particulate) followed by two incinerators (90.0% efficient for particulate, 95% efficient for VOC)	SR1901 SR2001 SR2101 SR2201 IN0101 IN0201	Particulate  Particulate/	10/14/97 RACT & 8/9/2004 as amended 10/12/2004
VS0101	Plenum AE-63	Mechanical separating system - 1990	10,000 lb/hr	Baghouse filter (99.5% efficient)	BH0701	Particulate	8/9/2004 as amended 10/12/2004
AF0101	AE-G2	Liquid application chamber - 2002	1,850 lbs/hr and 10 gal/hr	None			8/9/2004 as amended 10/12/2004
FA0101	Fugitive	Liquid application machine - 2002	7 gal/hr	None			8/9/2004 as amended 10/12/2004
TP2801	AE-G3 AE-G4 AE-G7	Pneumatic transport system - 2002	2,460 lbs/hr	Three baghouse filters (99.0% efficient)	BH5101 BH5201 BH5501	Particulate	8/9/2004 as amended 10/12/2004
VS0901	AE-G6	Mechanical separating system – to be built	1320 lbs/hr	Baghouse filter (99.0% efficient)	BH5401	Particulate	8/9/2004 as amended 10/12/2004
Flavor Center							
CR0101 CR0201 CR0301 CR0401 CR0501	Fugitive	Liquid application machines (under construction)	211 lb/hr	None			8/17/2004
TP0101F	AE-19	Pneumatic transport system - 1990	12,000 lbs/hr	Baghouse filter (99.0% efficient)	BH0101 F	Particulate	9/15/2004
Other Proces	ses	<b>,</b>					
CH0101	Bin Vent	Coal Unloading & Handling Operations	100 tons/hr	None			None

Emission Unit ID	Stack ID	Emission Unit Description - Manufacturer - Date of Construction	Size / Rated Capacity*	Pollution Control Device Description (PCD)*	PCD ID	Pollutant Controlled	Applicable Permit Date
TP0101	AE-56	Pneumatic transport system - 1995	35,800 lb/hr	Baghouse filter (99.0% efficient)	BH0601	Particulate	8/9/2004 as amended 10/12/2004
DC0101	AE-89	Mechanical transport system - 1995	510 lb/hr	Baghouse filter (99.0% efficient)	BH3101	Particulate	8/9/2004 as amended 10/12/2004
CF0601	AE-K2 AE-K3	Mechanical separating system - 1992	7200 units/hr	Baghouse filter (99.5% efficient) vents indoors	BH7401 BH7501	Particulate	8/9/2004 as amended 10/12/2004

#### **EMISSIONS INVENTORY**

The 2003 annual facility-wide emissions are summarized in the following tables.

2003 Actual Emissions

2003 Criteria Pollutant Emission in Tons/Year							
VOC	VOC CO SO <sub>2</sub> PM <sub>10</sub> NO <sub>x</sub>						
249.4	13.4	532.0	17.6	360.6			

2003 Facility Hazardous Air Pollutant Emissions

All Polic	itant ⊑missions
Pollutant	2003 Hazardous Air Pollutant Emission in Tons/Yr
ACETA	0.01
ASC	0.01
BZ	0.02
BZCL	0.01
CLMT	0.01
CNC	0.04
HCL	30.03
HF	3.64
ISPHR	0.01
MNC	0.17
MTETN	0.01
NH3	12.04
NHEXA	0.13
PB	0.01
PRPYD	0.01
SEC	0.02

### EMISSION UNIT APPLICABLE REQUIREMENTS - Central Plant Package Boilers (BO0101 & BO0201)

#### Limitations

Following are applicable requirements from the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

Condition III.A.4 describes the allowed fuel types

Condition III.A.7 & 11 limiting criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-900: Emission Standards for Fuel Burning Equipment- Standard for Particulate Matter

9 VAC 5-40-930: Emission Standards for Fuel Burning Equipment- Standard for Sulfur Dioxide 9 VAC 5-40-940 Standard for Visible Emissions

#### Monitoring

Conditions III.B.1, 2 and 3 describe monitoring requirements for the package boilers (BO0101 & BO0201).

#### **Testing**

A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Recordkeeping and Reporting**

Conditions III.C.1 and 2 describe the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

#### EMISSION UNIT APPLICABLE REQUIREMENTS - VU-40 PC Boiler (BO0301)

#### Limitations

Following are limitations from the existing NSR permit issued November 25, 1974 or from the application dated September 24, 1974:

Condition III.A.1 - Requirement of construction for the PC boiler

Condition III.A.3 - describes control technology for particulate matter

Condition III.A.5 - describes allowed fuel types

Condition III.A.8 & 10- limiting criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-900: Emission Standards for Fuel Burning Equipment- Standard for Particulate Matter

9 VAC 5-40-930: Emission Standards for Fuel Burning Equipment- Standard for Sulfur Dioxide 9 VAC 5-50-80: Standards of Performance for Visible Emissions and Fugitive Dust/Emissions-

Standard for Visible Emissions

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for Stationary Sources

#### Monitoring

Condition III.B.1-3 describes monitoring requirements for the PC boiler (BO0301).

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Conditions III.C.1 and 2 describe the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

An Initial Visible Emissions Evaluation has already been performed so that requirement was not included in this permit. Also the unit was originally permitted for #6 oil but that oil tank was permanently removed so that no longer applies.

#### **EMISSION UNIT APPLICABLE REQUIREMENTS - Coal Car Thawing Burners (HX0301)**

#### Limitations

Following are limitations from the existing NSR permit issued September 22, 1977:

Condition III.A.2 - Requirement of construction for the coal car thawing burners

Condition III.A.6 - describes allowed fuel type

Condition III.A.10 - limiting visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-900: Emission Standards for Fuel Burning Equipment- Standard for Particulate Matter

9 VAC 5-40-930: Emission Standards for Fuel Burning Equipment- Standard for Sulfur Dioxide 9 VAC 5-50-80: Standards of Performance for Visible Emissions and Fugitive Dust/Emissions-Standard for Visible Emissions

#### Monitoring

Condition III.B.3 describes monitoring requirements for the Coal Car Thawing Burner (HX0301)

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Recordkeeping and Reporting**

Conditions III.C.1 and 2 describe the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

#### EMISSION UNIT APPLICABLE REQUIREMENTS - Furnaces (FU0301, FU0401)

#### Limitations

Following are applicable requirements from the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

Condition III.A.4 - describes allowed fuel type

Condition III.A.9 & 10 - limiting criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-900: Emission Standards for Fuel Burning Equipment- Standard for Particulate Matter

9 VAC 5-40-930: Emission Standards for Fuel Burning Equipment- Standard for Sulfur Dioxide

9 VAC 5-50-80: Standards of Performance for Visible Emissions and Fugitive Dust/Emissions-Standard for Visible Emissions

#### Monitoring

Condition III.B.3 describes monitoring requirements for the Furnaces (FU0301, FU0401)

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition III.C.1 and 2 describe the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

## EMISSION UNIT APPLICABLE REQUIREMENTS - Emergency Generator and Diesel Fire Pumps (PU0101C, PU0102C, EG0101C)

#### Limitations

Following are applicable requirements from the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

Condition IV.A.1 - describes allowed fuel type

Condition IV.A.2 limiting the emergency generators to no more than 500 hrs of operation/yr

Condition IV.A.3 limiting visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-900: Emission Standards for Fuel Burning Equipment- Standard for Particulate Matter

9 VAC 5-40-930: Emission Standards for Fuel Burning Equipment- Standard for Sulfur Dioxide

9 VAC 5-50-80: Standards of Performance for Visible Emissions and Fugitive Dust/Emissions-Standard for Visible Emissions

#### Monitoring

Condition IV.B describes monitoring requirements for the Emergency Generator and Diesel Fire Pumps (EG0101C, PU0101C, PU0102C)

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Recordkeeping and Reporting**

Condition IV.Cdescribe the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

## EMISSION UNIT APPLICABLE REQUIREMENTS - Ash Handling (AH0101) and Coal Handling Operations (CH0101)

#### Limitations

Following are standards from the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

Condition V.A.1 - limit for particulate matter emissions

Condition V.A.2 - limit on visible emissions for the Ash Handling stacks (AE-05 and AE-07) and Coal Handling bin vent stacks.

Condition V.A.3 - describing fugitive dust control.

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-260: Emission Standards for General Process Operations - Standard for particulate matter

9 VAC 5-50-80: Standard for Visible Emissions

#### Monitoring

Condition V.B describes monitoring requirements for the ash handling (AH0101) and coal-handling (CH0101) operations.

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition V.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

## EMISSION UNIT APPLICABLE REQUIREMENTS - Pneumatic Transport System (TP0801, TP1401, TP1501)

#### Limitations

Following are limitations from the existing NSR permit issued August 9, 2004 as amended October 12, 2004:

Condition VI.A.1 - describes the control technology for particulate matter

Condition VI.A.2 - establishes throughput limit for pneumatic transport system

Condition VI.A.3 & 4 - limiting criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for stationary sources

9 VAC 5-50-270: Standards of Performance for Stationary Sources - Standard for major stationary sources (nonattainment areas)

9 VAC 5-50-280: Standards of Performance for Stationary Sources - Standard for major stationary sources (prevention of significant deterioration areas)

#### Monitoring

Condition V.B describes monitoring requirements for the pneumatic transport system.

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition V.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

## EMISSION UNIT APPLICABLE REQUIREMENTS - Housekeeping Vacuum Systems (CN0601, CN0602, CN0603, CN0701, CN0901, CN1001, MAHVSU)

#### Limitations

Following are limitations from the existing NSR permit issued August 9, 2004 as amended October 12, 2004:

Condition VII.A.1 - describes the control technology for particulate matter

Conditions VII.A.2 through 6- establishes throughput limits for the housekeeping vacuum systems

Condition VII.A.7 & 8 - limiting criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for stationary

9 VAC 5-50-270: Standards of Performance for Stationary Sources - Standard for major stationary sources (nonattainment areas)

9 VAC 5-50-280: Standards of Performance for Stationary Sources - Standard for major stationary sources (prevention of significant deterioration areas)

#### Monitoring

Condition VII.B describes monitoring for the fabric filters.

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition VII.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

#### **EMISSION UNIT APPLICABLE REQUIREMENTS - Tobacco Processing Equipment**

(TP3001, DC1001, PC0101, PC0201, CS0101, CS0201, CS0301, CS0401 CS0501, SP0101, SP0901, SP1001, SP1101, CS0901, OC0301 OC0401, CO0301, CO0401, CO0101, CO0201, SM0402, SM0502, PP0101, FC0101, FC0201, FC0301, FC0401, DA0101, DA0201, DA0301, DA0401, CC0101 CC0301, CC0201 CC0401, CS0601, CS0701, DR0101, DR0201, DR0301, DR0401, FC0501, FC0502, FC0601, FC0602, FC0701, FC0702, FC0801, FC0802, VS0101, TP0201, TP1101, SM0901, SP0201, SP0301, SP0401, SP0801, AF0101, FA0101, TP2801, VS0901)

#### Limitations

Following are limitations from the existing NSR permit issued August 9, 2004 as amended October 12, 2004:

Conditions VIII.A.1 & 2 - describe the control technology for particulate matter

Conditions VIII.A.3 & 4- describe the control technology for particulate matter and VOC

Condition VIII.A.5 - describes the control technology for VOC

Conditions VIII.A.6 through 17 - establish throughput limits for the tobacco processing equipment

Conditions VIII.A.18 through 21 - limit criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Code that has specific emission requirements has been determined to be applicable:

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for stationary sources

9 VAC 5-50-270: Standards of Performance for Stationary Sources - Standard for major stationary sources (nonattainment areas)

9 VAC 5-50-280: Standards of Performance for Stationary Sources - Standard for major stationary sources (prevention of significant deterioration areas)

#### Monitoring

Condition VIII.B describes monitoring devices and methods

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Recordkeeping and Reporting**

Condition VIII.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

## EMISSION UNIT APPLICABLE REQUIREMENTS - Flavor Applications CR0101, CR0201, CR0301, CR0401, CR0501, TP0101F

#### Limitations

Following are limitations from the existing NSR permits issued August 17, 2004 and September 15, 2004:

Condition IX.A.1 - describe the control technology for particulate matter

Condition IX.A.2 establishes a control efficiency for the baghouse

Conditions IX.A.3 & 4 - establish throughput limits for the pneumatic transport equipment and the liquid application machines.

Conditions IX.A. 5, 6 and 7 - limit criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Code that has specific emission requirements has been determined to be applicable:

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for stationary sources

9 VAC 5-50-270: Standards of Performance for Stationary Sources - Standard for major stationary sources (nonattainment areas)

9 VAC 5-50-280: Standards of Performance for Stationary Sources - Standard for major stationary sources (prevention of significant deterioration areas)

#### Monitoring

Condition IX.B describes monitoring methods for the baghouses

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition IX.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

There are no streamlined conditions for this permit.

EMISSION UNIT APPLICABLE REQUIREMENTS - Other Processes (Pneumatic Transport System TP0101, Mechanical Transport System DC0101 and Mechanical Separating System

#### CF0601)

#### Limitations

Following are limitations from the existing NSR permits issued August 9, 2004 as amended October 12, 2004:

Condition X.A.1 - describes the control technology for particulate matter

Conditions X.A.2, 3, & 4 - establish throughput limits for the other processes

Conditions X.A.5 and 6 - limit criteria pollutant emissions and visible emissions

Condition XI.A.1 requiring notification for control equipment maintenance (Facility Wide)

Condition XI.A.2 requiring notification for facility or control equipment malfunction (Facility Wide)

Condition XI.A.3 describing maintenance and operating procedures (Facility Wide)

Condition XI.A.4 regarding actions to avoid violation of ambient air quality standard (Facility Wide)

Condition XI.A.5 regarding registration updates (Facility Wide)

The following Virginia Administrative Code that has specific emission requirements has been determined to be applicable:

9 VAC 5-50-260: Standards of Performance for Stationary Sources-Standard for stationary sources

9 VAC 5-50-270: Standards of Performance for Stationary Sources - Standard for major stationary sources (nonattainment areas)

9 VAC 5-50-280: Standards of Performance for Stationary Sources - Standard for major stationary sources (prevention of significant deterioration areas)

#### Monitoring

Condition IX.B describes monitoring devices and methods

#### **Testing**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### Recordkeeping and Reporting

Condition IX.C describes the recordkeeping and reporting requirements for this equipment.

#### **Streamlined Requirements**

#### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

#### **Comments on General Conditions**

#### **B** Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit applications has been delegated to the Regions as allowed by §§2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

This general conditions cites the entire Article that follows:

Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. <u>Federal Permits for Stationary Sources</u>

This general condition cites the sections that follow:

9 VAC 5-80-80. Application

9 VAC 5-80-140. Permit Shield

9 VAC 5-80-150. Action on Permit Applications

#### F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within four hours of discovery. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of the malfunction.

In order for emission units to be relieved from the requirement to make a written report in 14 days the emission units must have continuous monitors and the continuous monitors must meet the requirements of 9 VAC 5-50-410 or 9 VAC 5-40-41.

This general condition cites the sections that follow:

```
9 VAC 5-40-41. Emissions Monitoring Procedures for Existing Sources
```

- 9 VAC 5-40-50. Notification, Records and Reporting
- 9 VAC 5-50-50. Notification, Records and Reporting

#### J. Permit Modification

This general condition cites the sections that follow:

```
9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
```

9 VAC 5-80-190. Changes to Permits

9 VAC 5-80-260. Enforcement

9 VAC 5-80-1100. Applicability, Permits for New and Modified Stationary Sources

9 VAC-5-80-1790. Applicability, Permits for Major Stationary Sources and

Modifications Located in Prevention of Significant Deterioration Areas

#### U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

```
9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction 9 VAC 5-80-110. Permit Content
```

#### STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have not been included in the Federal Operating Permit:

9 VAC 5-40-20.A.3 Compliance (with opacity standards except during startup,

shutdown, and malfunction); 9 VAC 5-50-310, Odorous Emissions 9 VAC 5-60-320, Toxic Pollutants

#### FUTURE APPLICABLE REQUIREMENTS

The boilers at this facility are subject to 40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters. This MACT was published in the Federal Register on September 13, 2004. Compliance shall be achieved by September 13, 2007.

#### INAPPLICABLE REQUIREMENTS

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

An emergency generator (EG0101C) is used for emergencies only and therefore only the notification requirements of 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines apply.

#### **COMPLIANCE PLAN**

There is no compliance plan for this facility.

#### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Regulatory Basis	Pollutant Emitted	Rated Capacity
IM0201, IM0202 IM0301, IM0303	Treatment Chambers	5-80-720 B	VOC, PM, PM10	
CO0501	Conveyors	5-80-720 B	VOC, PM, PM10	
CF0401 to CF0404, VC0101, VC0102	Mechanical Separators	5-80-720 B	VOC, PM, PM10	
CF0101 to CF0105, CF0201 to CF0205	Cutters	5-80-720 B	PM, PM10	
CF0301 to CF0303	Cutters	5-80-720 B	PM, PM10	
TP3101	Pneumatic Transport System	5-80-720 B	PM, PM10	
TP3201	Pneumatic Transport System	5-80-720 B	PM, PM10	
EG0101	LPG Emergency Generator (DM Warehouse)	5-80-720 C		60 kW (80 hp)
EG0201	LPG Emergency Generator (SB Warehouse)	5-80-720 C		45 kW (60 hp)
EG0301	LPG Emergency Generator (Security Gate K)	5-80-720 C		15 kW (20 hp)
EG0401	LPG Emergency Generator (Security Gates C and D)	5-80-720 C		30 kW (40 hp)
EG0501	LPG Emergency Generator (Security Gate M)	5-80-720 C		15 kW (20 hp)
EG0701	LPG Emergency Generator (ASRS)	5-80-720 C		45 kW (75 hp)
EG0101F	Diesel Emergency Generator (Flavor Center)	5-80-720 C		300 kW (402 hp)
HX1001	Electric (Parts Glue Removal) Dryer	5-80-720 B	PM, PM10	
EV0101	Electric (Parts Rinse Water) Concentrator	5-80-720 B	VOC	
Various	Shop Parts Washers	5-80-720 B	VOC	
Various	Parts Sandblasters	5-80-720 B	PM, PM10	
EH0201	Paint Spray Booth	5-80-720 B	VOC, PM, PM10	
IP0101	Ink Press (Water-based)	5-80-720 B	VOC	
Various	Flavor Tanks	5-80-720 B	VOC	
Various	Glue (Adhesive), and Plasticizer Tanks	5.80-720 B	VOC	
TK0101	Underground Alcohol Storage Tank	5-80-720 B	VOC	20,000 gallons
TK0102	Underground Alcohol Storage Tank	5-80-720 B	VOC	20,000 gallons

Emission	Emission Unit	Regulatory	Pollutant	Rated
Unit No.	Description	Basis	Emitted	Capacity
Various	Hydraulic Oil Tanks	5-80-720 B	VOC	
Various	Diesel Day Tanks	5-80-720 B	VOC	
TK0301C	No.2 Fuel Oil Storage Tank (Central Plant)	5-80-720 B	VOC	148,000 gallons
TK0302C	No.2 Fuel Oil Storage Tank (Central Plant)	5-80-720 B	VOC	148,000 gallons
TK0601C	Underground Diesel Storage Tank (Central Plant)	5-80-720 B	VOC	15,000 gallons
TK2501B	No.2 Fuel Oil Storage Tank (PC Boiler Plant)	5-80-720 B	VOC	15,000 gallons
Various	Flavor Tanks – Flavor Center	5-80-720 B	VOC	
Various	Flavor Mixing Hoods – Flavor Center	5-80-720 B	VOC, PM, PM10	
TK0301F	Underground Alcohol Storage Tank – Flavor Center	5-80-720 B	VOC	12,000 gallons

#### **CONFIDENTIAL INFORMATION**

The permittee submitted a showing for confidentiality but the underlying NSR permits do not contain confidential information. A non-confidential permit application was submitted and all portions of the Title V application are suitable for public review.

#### **PUBLIC PARTICIPATION**

The proposed permit was placed in the <u>Richmond Times Dispatch</u> on September 16, 2004 and stayed in Public Notice from September 16 to October 15, 2004.

Philip Morris submitted minor comments with regard to formatting issues. These were incorporated into the Title V permit.